

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-9. (Canceled)

10. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a non-single crystal semiconductor film over a substrate;

providing a light-shielding film with an opening ~~[[over]]~~ on the non-single crystal semiconductor film;

shaping a laser beam emitted from a laser oscillator to become a beam spot on a surface to be irradiated; and

performing laser annealing to the non-single crystal semiconductor film through the opening of the light-shielding film while ~~an irradiated position of the beam spot is relatively moved~~ relatively moving the substrate in a direction of a minor axis of the beam spot,

wherein the beam spot has one of a linear shape and an elliptical shape,

wherein a surface of the non-single crystal semiconductor film is the surface to be irradiated,

wherein a portion of the beam spot is shielded with the light-shielding film while the laser annealing to the non-single crystal semiconductor film is performed, and

wherein the portion of the beam spot has a lower energy density than the center of the beam spot.

11. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein a distance between a surface of the light-shielding film and the surface of the semiconductor film is not more than 10 μm .

12. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein a distance between a surface of the light-shielding film and the surface of the semiconductor film is not more than 1 μm .

13. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein the light-shielding film comprises a metal film.

14. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein the light-shielding film comprises an insulating film.

15. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a non-single crystal semiconductor film over a substrate;

forming an anti-contamination film ~~[[over]]~~ on the non-single crystal semiconductor film;

providing a light-shielding film with an opening ~~[[over]]~~ on the anti-contamination film;

shaping a laser beam emitted from a laser oscillator to become a beam spot on a surface to be irradiated; and

performing laser annealing to the non-single crystal semiconductor film through the opening of the light-shielding film while ~~an irradiated position of the beam spot is relatively moved~~ relatively moving the substrate in a direction of a minor axis of the beam spot,

wherein the beam spot has one of a linear shape and an elliptical shape,

wherein a surface of the non-single crystal semiconductor film is the surface to be irradiated,

wherein a portion of the beam spot is shielded with the light-shielding film while the laser annealing to the non-single crystal semiconductor film is performed, and

wherein the portion of the beam spot has a lower energy density than the center of the beam spot.

16. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein a distance between a surface of the light-shielding film and the surface of the semiconductor film is not more than 10 μm .

17. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein a distance between a surface of the light-shielding film and the surface of the semiconductor film is not more than 1 μm .

18. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the light-shielding film comprises a metal film.

19. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the light-shielding film comprises an insulating film.

20. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the anti-contamination film comprises a silicon oxide film.

21. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein the laser oscillator is a continuous wave solid laser.

22. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the laser oscillator is a continuous wave solid laser.

23. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein the laser oscillator is one kind or plural kinds selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, Y₂O₃ laser, alexandrite laser, and Ti: Sapphire laser.

24. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the laser oscillator is one kind or plural kinds selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, Y₂O₃ laser, alexandrite laser, and Ti: Sapphire laser.

25. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein the laser oscillator is one kind or plural kinds selected from the group consisting of continuous wave Ar laser, continuous wave Kr laser, and continuous wave CO₂ laser.

26. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the laser oscillator is one kind or plural kinds selected from the group consisting of continuous wave Ar laser, continuous wave Kr laser, and continuous wave CO₂ laser.

27. (Original) A method for manufacturing a semiconductor device according to claim 10, wherein the laser beam is higher harmonic.

28. (Original) A method for manufacturing a semiconductor device according to claim 15, wherein the laser beam is higher harmonic.

29.-35. (Canceled)

36. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a semiconductor film over a substrate;

providing a light-shielding film with an opening ~~[[over]]~~ on the semiconductor film;

shaping a laser beam emitted from a laser oscillator into a linear or an elliptical beam spot; and

irradiating the laser beam to the semiconductor film through the opening of the light-shielding film while ~~the substrate is relatively moved~~ relatively moving the substrate in a direction of a minor axis of the beam spot,

wherein a portion of the laser beam is shielded with the light-shielding film and the portion has a lower energy density than the center of the laser beam.

37. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the laser beam has one of a linear shape and an elliptical shape.

38. (Canceled)

39. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein a distance between a surface of the light-shielding film and a surface of the semiconductor film is not more than 10 μm .

40. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein a distance between a surface of the light-shielding film and a surface of the semiconductor film is not more than 1 μm .

41. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the light-shielding film comprises a metal film.

42. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the light-shielding film comprises an insulating film.

43. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the laser beam is emitted from a continuous wave solid laser.

44. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, Y₂O₃ laser, alexandrite laser, and Ti: Sapphire laser.

45. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of continuous wave Ar laser, continuous wave Kr laser, and continuous wave CO₂ laser.

46. (Original) A method for manufacturing a semiconductor device according to claim 36, wherein the laser beam is higher harmonic.

47. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a semiconductor film over a substrate;

providing a light-shielding film with an opening ~~[[over]]~~ on the semiconductor film;

shaping a laser beam emitted from a laser oscillator into a linear or an elliptical beam spot; and

irradiating the laser beam to the semiconductor film through the opening of the light-shielding film while relatively moving the substrate in a direction of a minor axis of the beam spot,

wherein a distance between a surface of the light-shielding film and a surface of the semiconductor film is not more than 10 μm , and

wherein a portion of the laser beam is shielded with the light-shielding film and the portion has a lower energy density than the center of the laser beam.

48. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the laser beam has one of a linear shape and an elliptical shape.

49. (Canceled)

50. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein a distance between a surface of the light-shielding film and the surface of the semiconductor film is not more than 1 μm .

51. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the light-shielding film comprises a metal film.

52. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the light-shielding film comprises an insulating film.

53. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the laser beam is emitted from a continuous wave solid laser.

54. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the laser beam is emitted from one kind or plural kinds selected from

the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, Y₂O₃ laser, alexandrite laser, and Ti: Sapphire laser.

55. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of continuous wave Ar laser, continuous wave Kr laser, and continuous wave CO₂ laser.

56. (Original) A method for manufacturing a semiconductor device according to claim 47, wherein the laser beam is higher harmonic.

57. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a semiconductor film over a substrate;

providing a light-shielding film with an opening ~~[[over]]~~ on the semiconductor film;

and

irradiating a laser beam to the semiconductor film through the opening of the light-shielding film while ~~the substrate is relatively moved~~ relatively moving the substrate in a direction of a minor axis of a beam spot of the laser beam,

wherein a portion of the laser beam is shielded with the light-shielding film and the portion has a lower energy density than the center of the laser beam.

58. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the laser beam has one of a linear shape and an elliptical shape.

59. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein a distance between a surface of the light-shielding film and a surface of the semiconductor film is not more than 10 μ m.

60. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein a distance between a surface of the light-shielding film and a surface of the semiconductor film is not more than 1 μm .

61. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the light-shielding film comprises a metal film.

62. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the light-shielding film comprises an insulating film.

63. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the laser beam is emitted from a continuous wave solid laser.

64. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of YAG laser, YVO_4 laser, YLF laser, YAlO_3 laser, Y_2O_3 laser, alexandrite laser, and Ti: Sapphire laser.

65. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of continuous wave Ar laser, continuous wave Kr laser, and continuous wave CO_2 laser.

66. (Original) A method for manufacturing a semiconductor device according to claim 57, wherein the laser beam is higher harmonic.

67. (Currently Amended) A method for manufacturing a semiconductor device, comprising:

forming a semiconductor film over a substrate;

providing a light-shielding film with an opening ~~[[over]]~~ on the semiconductor film;

and

irradiating a laser beam to the semiconductor film through the opening of the light-shielding film while relatively moving the substrate in a direction of a minor axis of a beam spot of the laser beam.

wherein a distance between a surface of the light-shielding film and a surface of the semiconductor film is not more than 10 μm , and

wherein a portion of the laser beam is shielded with the light-shielding film and the portion has a lower energy density than the center of the laser beam.

68. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the laser beam has one of a linear shape and an elliptical shape.

69. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein a distance between a surface of the light-shielding film and the surface of the semiconductor film is not more than 1 μm .

70. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the light-shielding film comprises a metal film.

71. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the light-shielding film comprises an insulating film.

72. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the laser beam is emitted from a continuous wave solid laser.

73. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of YAG laser, YVO₄ laser, YLF laser, YAlO₃ laser, Y₂O₃ laser, alexandrite laser, and Ti: Sapphire laser.

74. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the laser beam is emitted from one kind or plural kinds selected from the group consisting of continuous wave Ar laser, continuous wave Kr laser, and continuous wave CO₂ laser.

75. (Original) A method for manufacturing a semiconductor device according to claim 67, wherein the laser beam is higher harmonic.

76. (New) A method for manufacturing a semiconductor device according to claim 10, wherein the substrate is set on a stage for moving the substrate.

77. (New) A method for manufacturing a semiconductor device according to claim 15, wherein the substrate is set on a stage for moving the substrate.

78. (New) A method for manufacturing a semiconductor device according to claim 36, wherein the substrate is set on a stage for moving the substrate.

79. (New) A method for manufacturing a semiconductor device according to claim 47, wherein the substrate is set on a stage for moving the substrate.

80. (New) A method for manufacturing a semiconductor device according to claim 57, wherein the substrate is set on a stage for moving the substrate.

81. (New) A method for manufacturing a semiconductor device according to claim 67, wherein the substrate is set on a stage for moving the substrate.